

# ARPA-E Information Session: SCALEUP Program

## Briefing for Industry and Investors

February 24, 2020

*We will begin momentarily*

*Kindly note this webinar is being recorded and will be publically available following today's presentation*

# Notice

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The content included in this presentation is intended only to summarize the ARPA-E SCALEUP funding process, as well as the contents of SCALEUP funding opportunity announcement (FOA) **DE-FOA-0002166**.

The SCALEUP FOA language will control if there are any inconsistencies between this presentation and the FOA. All Applicants and potential Partners are strongly encouraged to carefully read the SCALEUP FOA.

# We look forward to hearing from you!

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- ▶ **Please submit your questions during the presentation!**
  - Chat your questions in the WebEx chat bar OR
  - Email to [arpa-e-comms@hq.doe.gov](mailto:arpa-e-comms@hq.doe.gov) with “SCALEUP Webinar” in the subject line.
  - Kindly note that to avoid distractions, all phone lines are muted
- ▶ Written question responses will be distributed, via
  - Email to Webinar registrants
  - Posted on ARPA-E’s eXCHANGE
  - Posted on the SCALEUP website
    - <https://arpa-e.energy.gov/?q=scaleup>
- ▶ Today’s presentation will be recorded. The presentation will be posted on ARPA-E’s website and ARPA-E eXCHANGE.

# Today's Agenda

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## Seeding Critical Advances for Leading Energy technologies with Untapped Potential (SCALEUP)

- ▶ FYI – Today's talk is tailored for industry and investors!
  - Team Introduction
  - Why SCALEUP?
  - SCALEUP FOA Process
  - Program Overview
  - Partnering 101
  - Helpful Resources

# ARPA-E Team SCALEUP

That's me!



**Mary  
Yamada**  
*T2M Advisor*



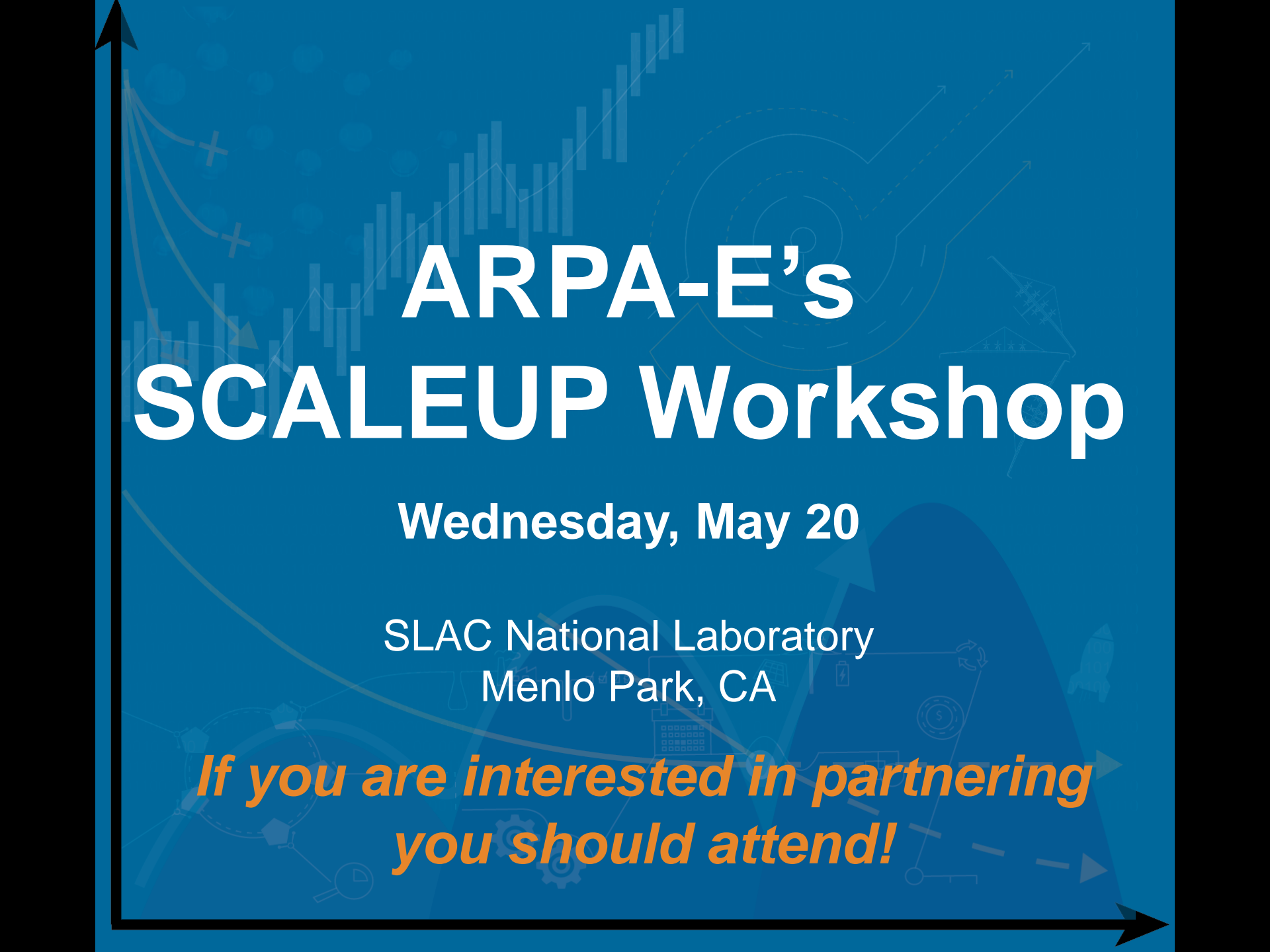
**James  
Zahler**  
*Associate  
Director for  
T2M*



**Pat  
McGrath**  
*Deputy  
Director for  
Technology*



**Madhav  
Acharya**  
*T2M Advisor*



# ARPA-E's SCALEUP Workshop

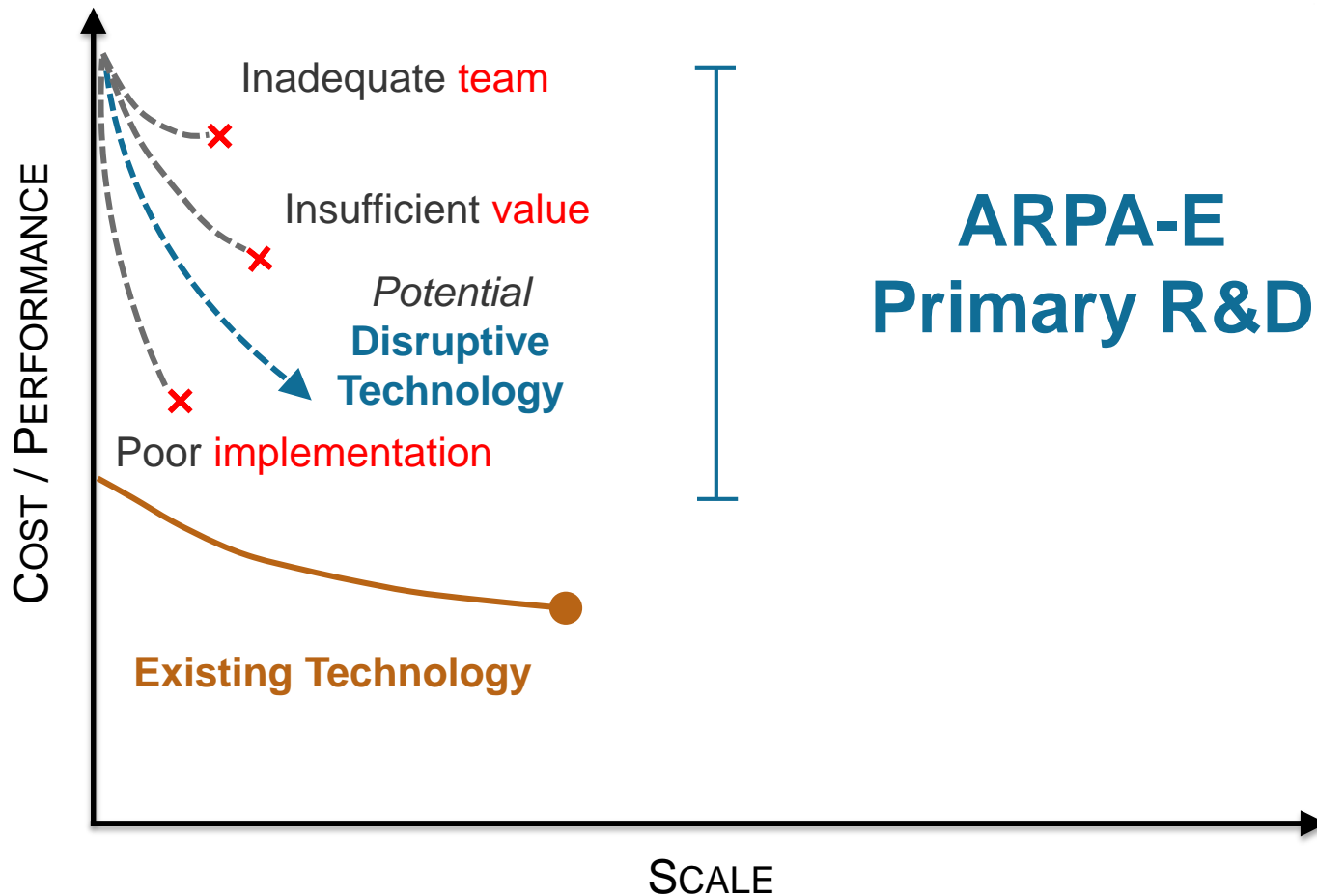
Wednesday, May 20

SLAC National Laboratory  
Menlo Park, CA

*If you are interested in partnering  
you should attend!*

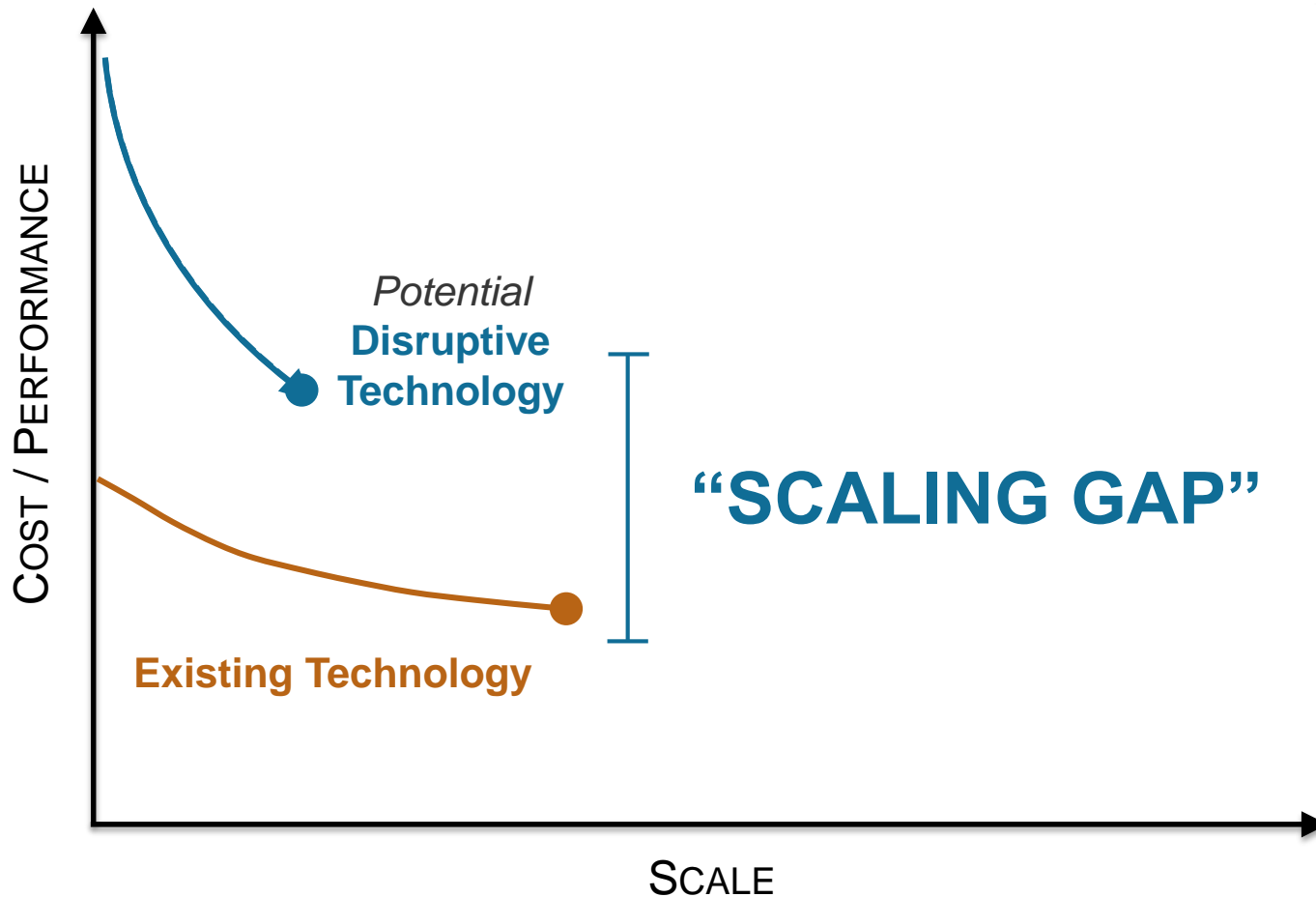
# Why SCALEUP?

# SCALEUP Motivation

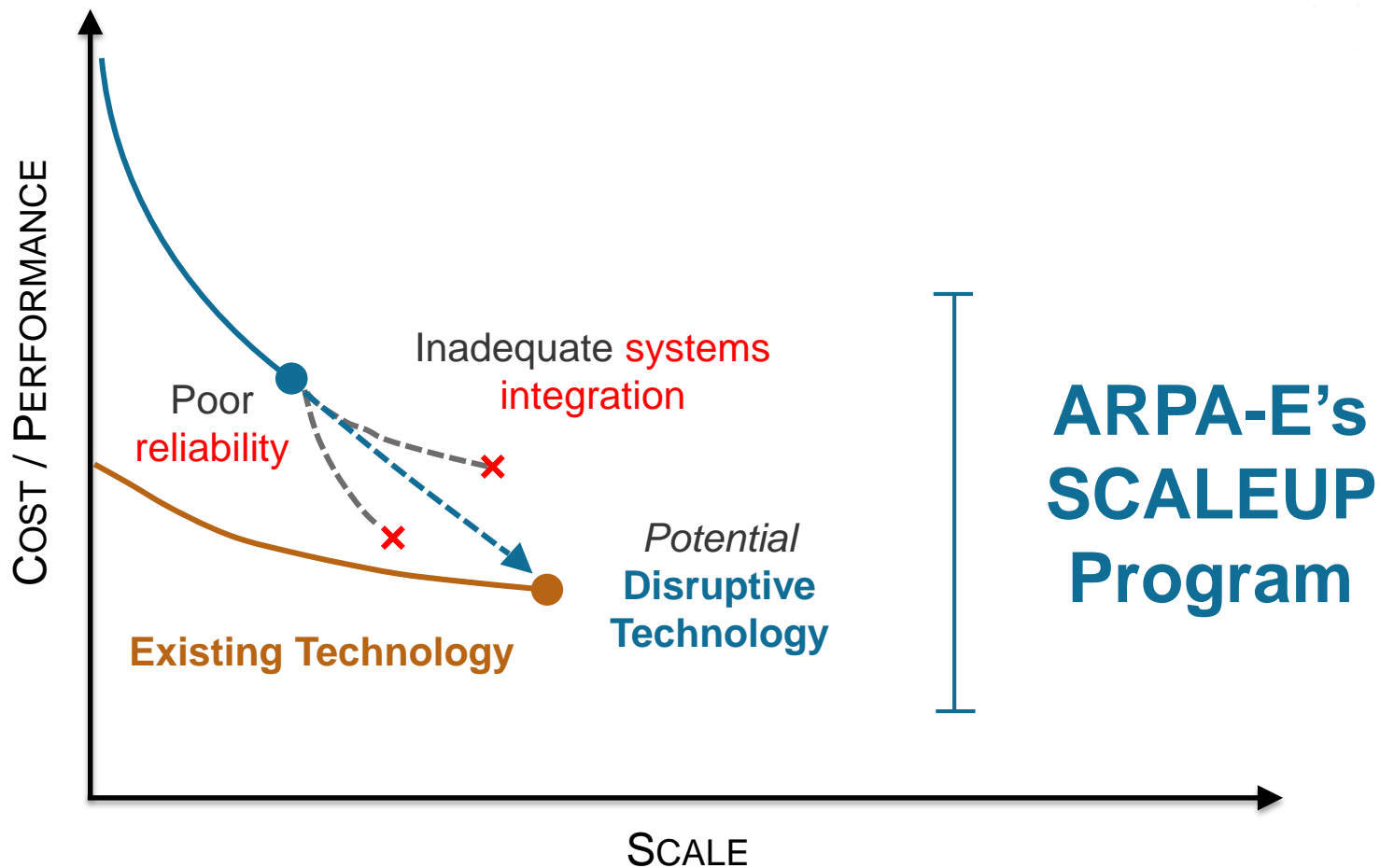




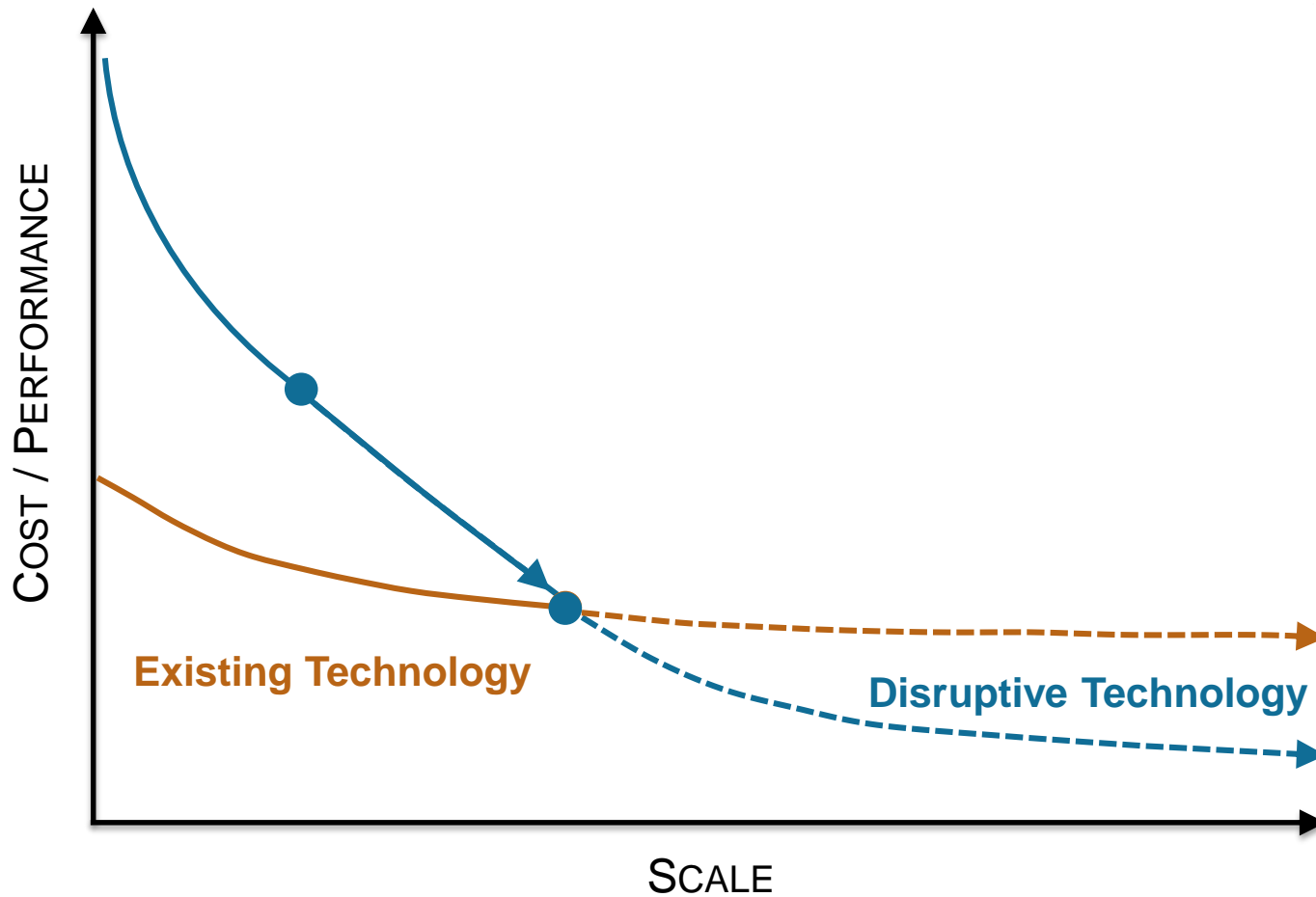
# SCALEUP Motivation



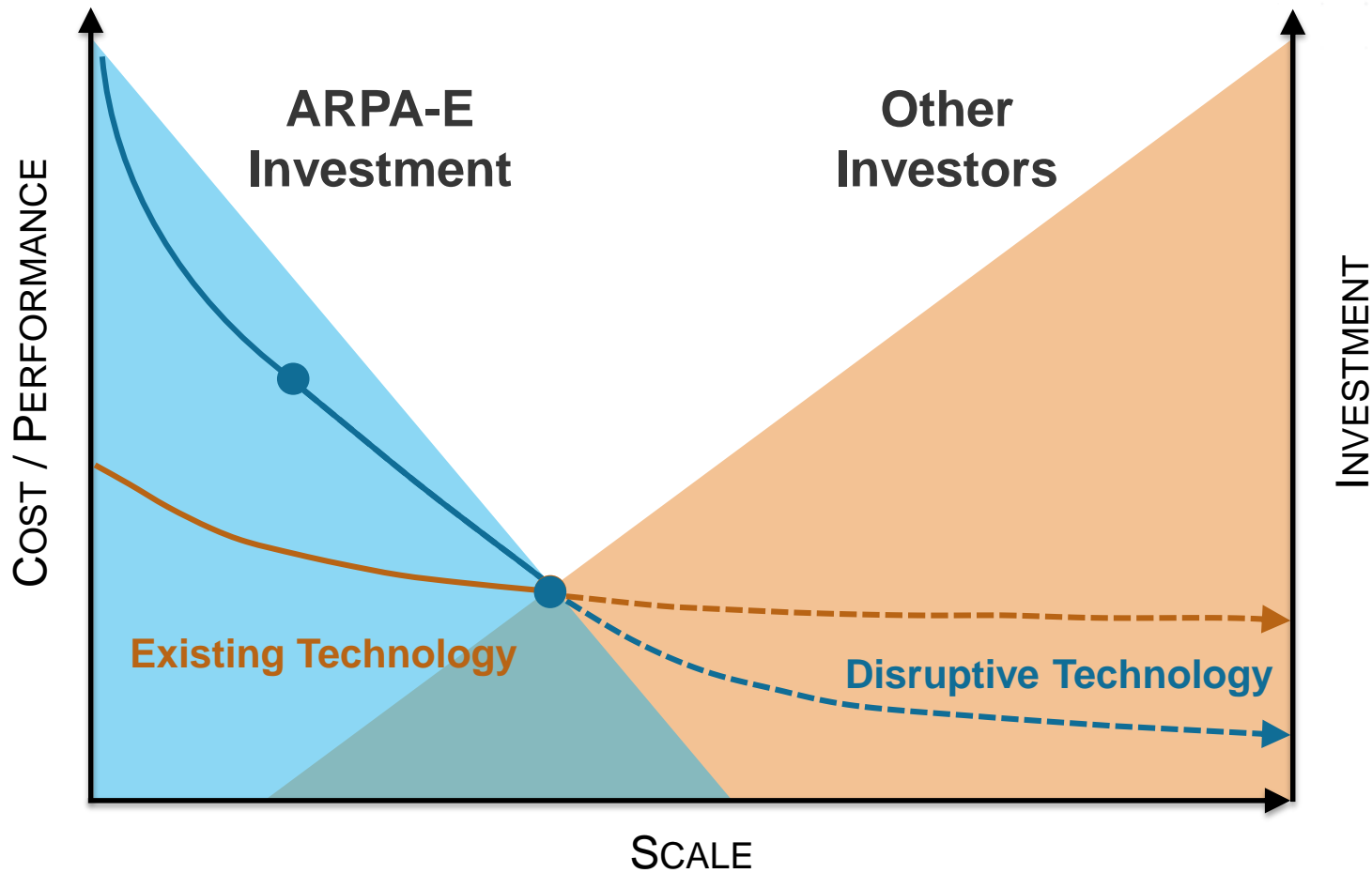
# SCALEUP Motivation



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# SCALEUP Motivation



# SCALEUP Program Highlights

SEEDING CRITICAL ADVANCES FOR LEADING ENERGY TECHNOLOGIES WITH UNTAPPED POTENTIAL

- ▶ **1<sup>st</sup>** scaling and pre-pilot focused program from ARPA-E
- ▶ **\$50M** available for 5 to 8 selected teams
  - Awards between \$1M and \$10M (federal share)
  - Small Business Grant
- ▶ **50%** cost share (non-federal share/total project costs)
- ▶ **Small Business** focused
  - Reduced cost share of 30% options
  - \$150k grant available

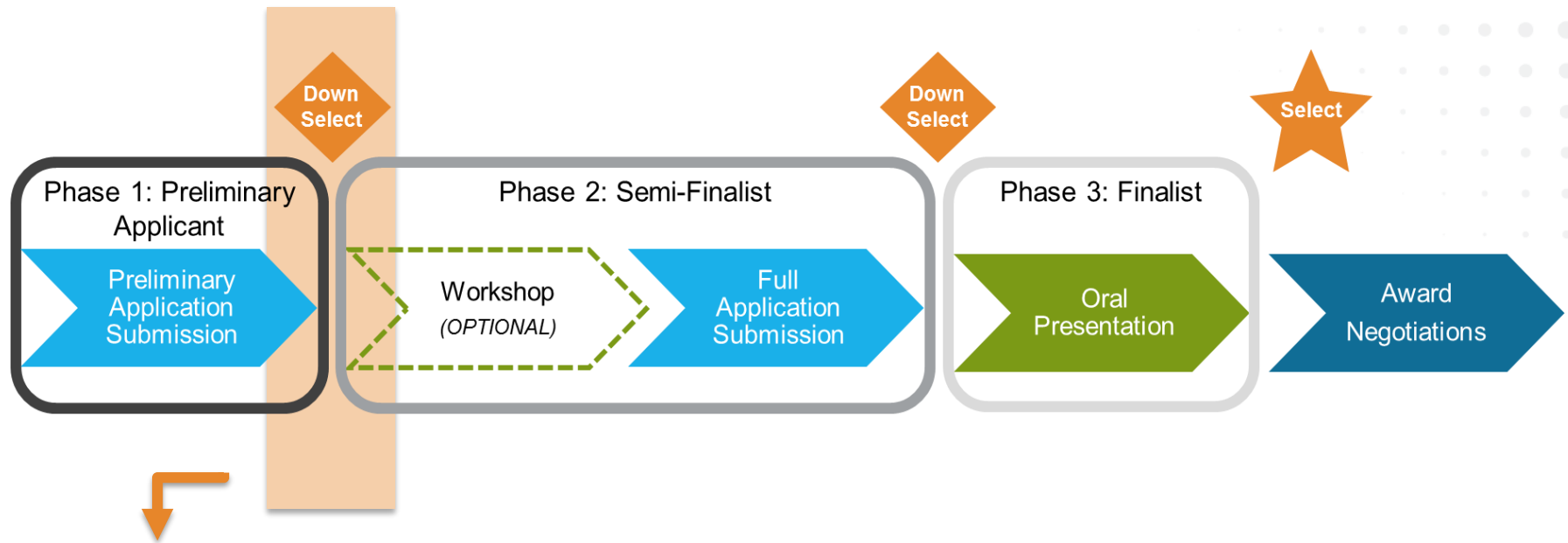
# SCALEUP FOA Process

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# SCALEUP FOA Phases and Project Selections



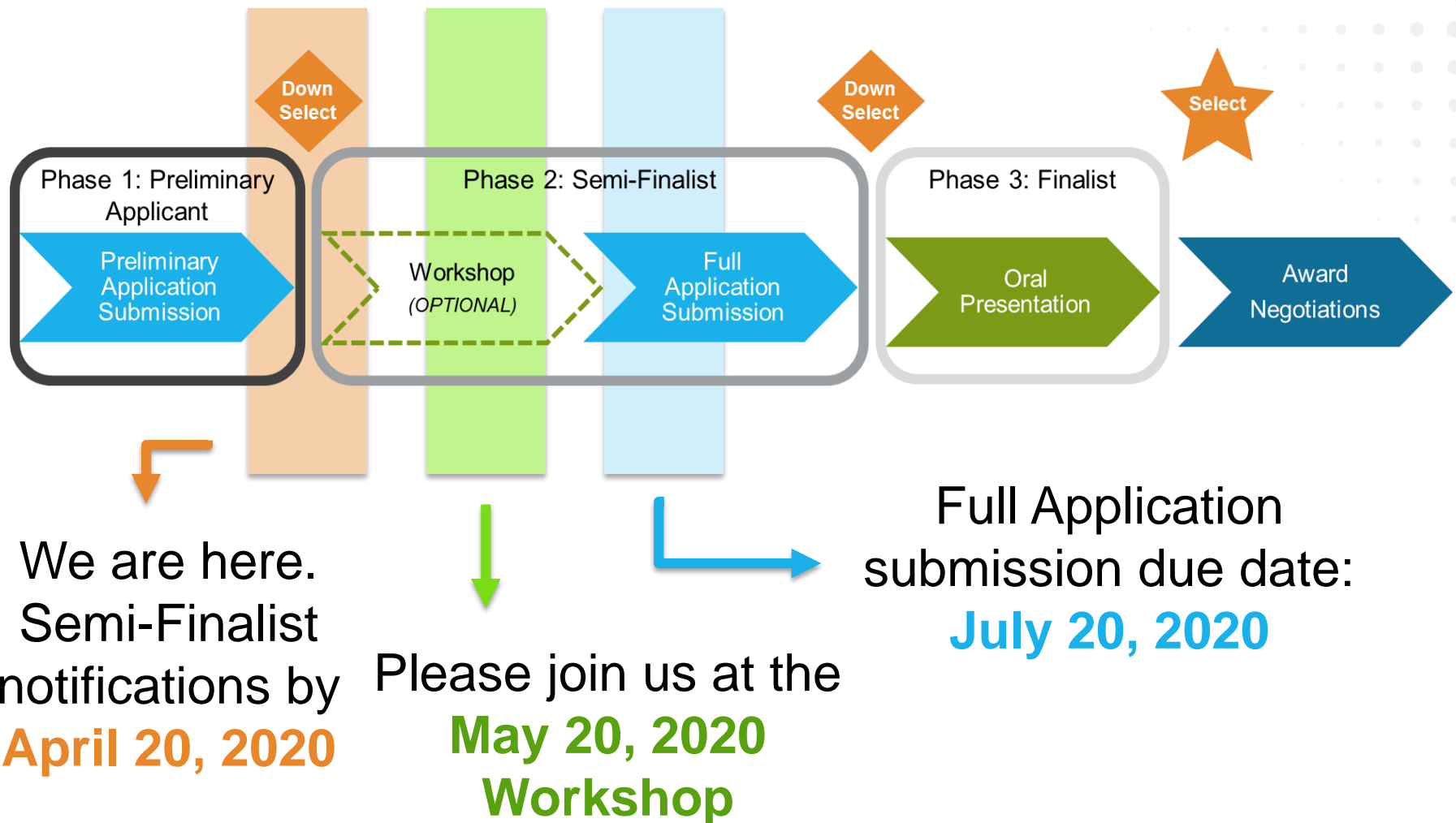
We are here.  
Semi-Finalist  
notifications by  
**April 20, 2020**

# SCALEUP FOA Phases and Project Selections





# SCALEUP FOA Phases and Project Selections



# Program Overview

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# SCALEUP FOA Applicants

Small business, company, and industry participation is at the core of the SCALEUP program.



SCALEUP is designed to encourage **company and industry** participation

In addition, applicants to the SCALEUP FOA:






Must own/control **subject invention(s) or software** arising from ARPA-E award(s)



Must **partner** with potential customers, end-users, suppliers, etc.

# SCALEUP Team Structure

SCALEUP Project Role	Example Entity/Organization Types
Prime Applicant	<ul style="list-style-type: none"><li>• Start-up or Small Business</li><li>• Large/Medium Sized Business</li><li>• Consortia or Non-profit</li></ul> 
Sub-Applicant	<ul style="list-style-type: none"><li>• National Laboratory</li><li>• University</li><li>• Research Institute</li></ul> 
Partner	<ul style="list-style-type: none"><li>• Venture Capital</li><li>• Corporate Investor</li><li>• OEM/Suppliers</li></ul> 

**As we enter Phase 2 of the SCALEUP FOA process, you can partner with Semi-Finalists!**

# Types of SCALEUP Projects

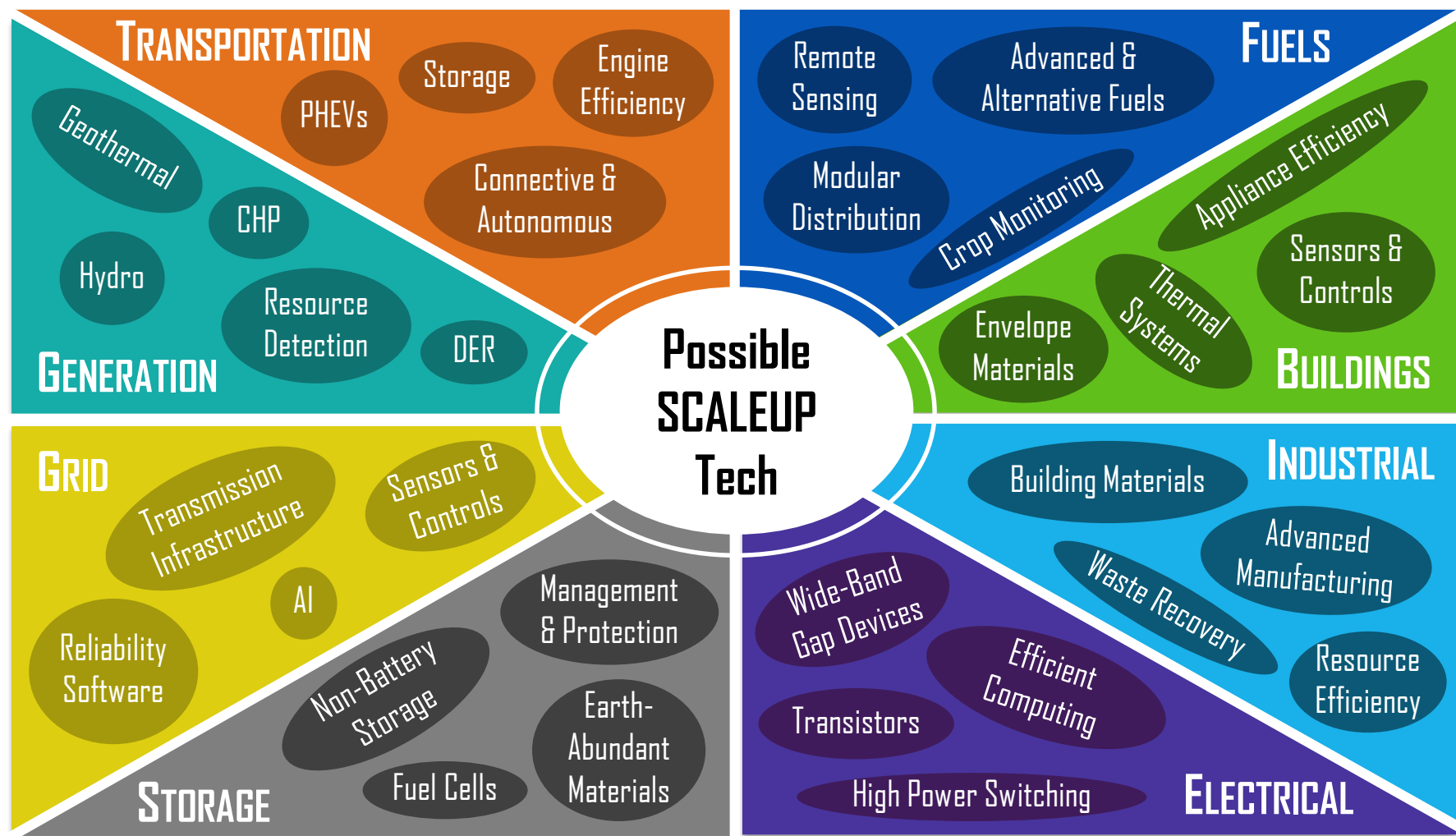
Pre-commercial scaling projects that focus on:

- ▶ *Technology Integration*
- ▶ *Building Capacity*
- ▶ *Validating Performance*
- ▶ *Manufacturability*
- ▶ *Reliability*

Success in these ARPA-E SCALEUP projects will enable...

***Substantial investments*** from the private sector to continue the development to early commercial products.

# Possible SCALEUP Technologies



# ARPA-E's SCALEUP Criteria

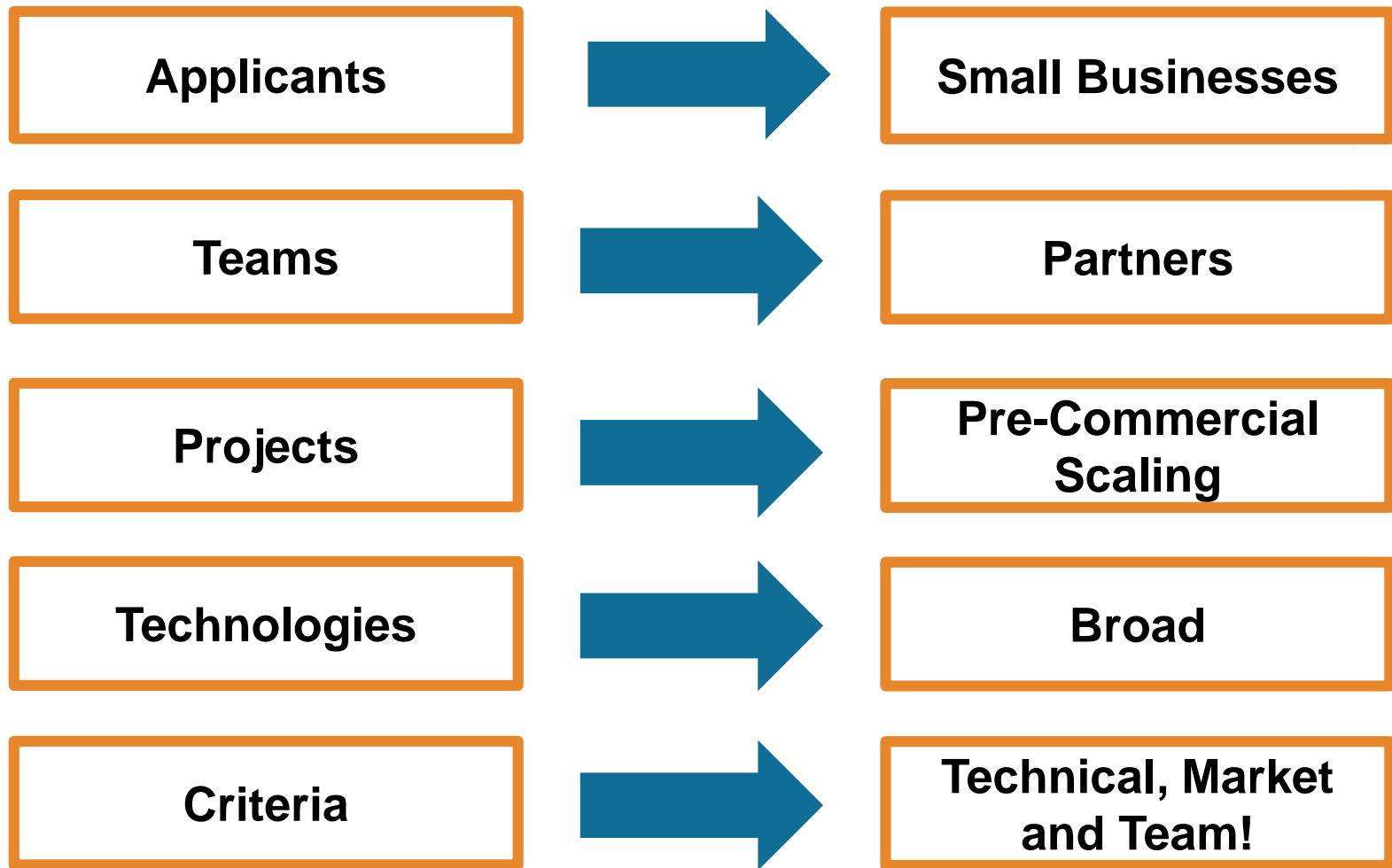
**We use quantitative and qualitative criteria to evaluate SCALEUP applications.**

The three, equally weighted, criteria areas include:

SCALEUP Criteria	Weight (%)
Project Feasibility & Technical Merit	33.33%
Commercial Viability, Strategy, & Impact	33.33%
Team Qualifications, Experience, & Capabilities	33.33%

**We've emphasized and elevated the importance of market potential and team composition.**

# SCALEUP Review





# Partnering 101

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# SCALEUP Partners

The SCALEUP FOA includes both required and optional partnering with investors and industry.

## Commercialization Partners (REQUIRED)

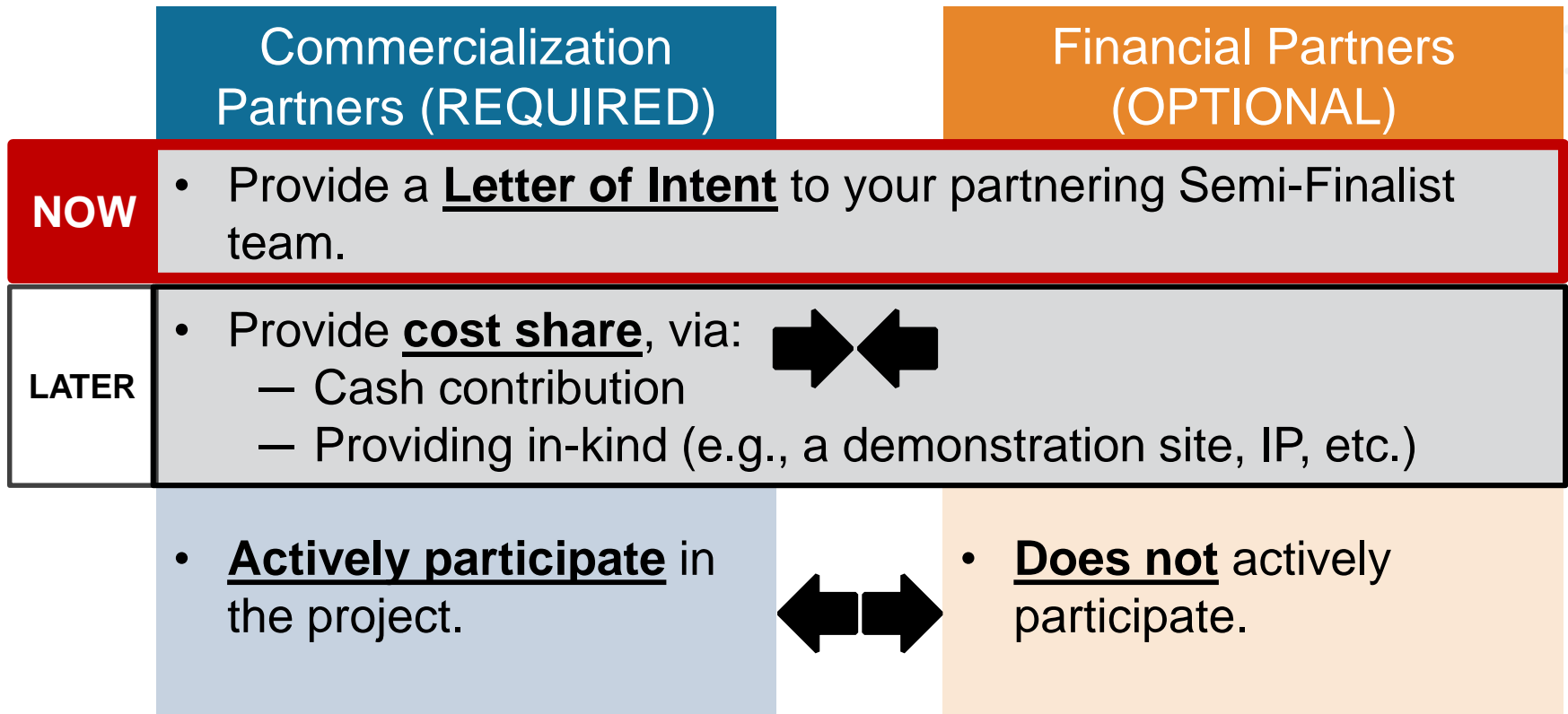
- **Customers**
- **End-Users**
- **Suppliers**
- **Manufacturers**
- **Distributors**
- **Corporate Investors**

## Financial Partners (OPTIONAL)

- **Venture Capitalists**
- **Accelerators**
- **Incubators**
- **Angel Investors**
- **Impact Investors**
- **Corporate Investors**

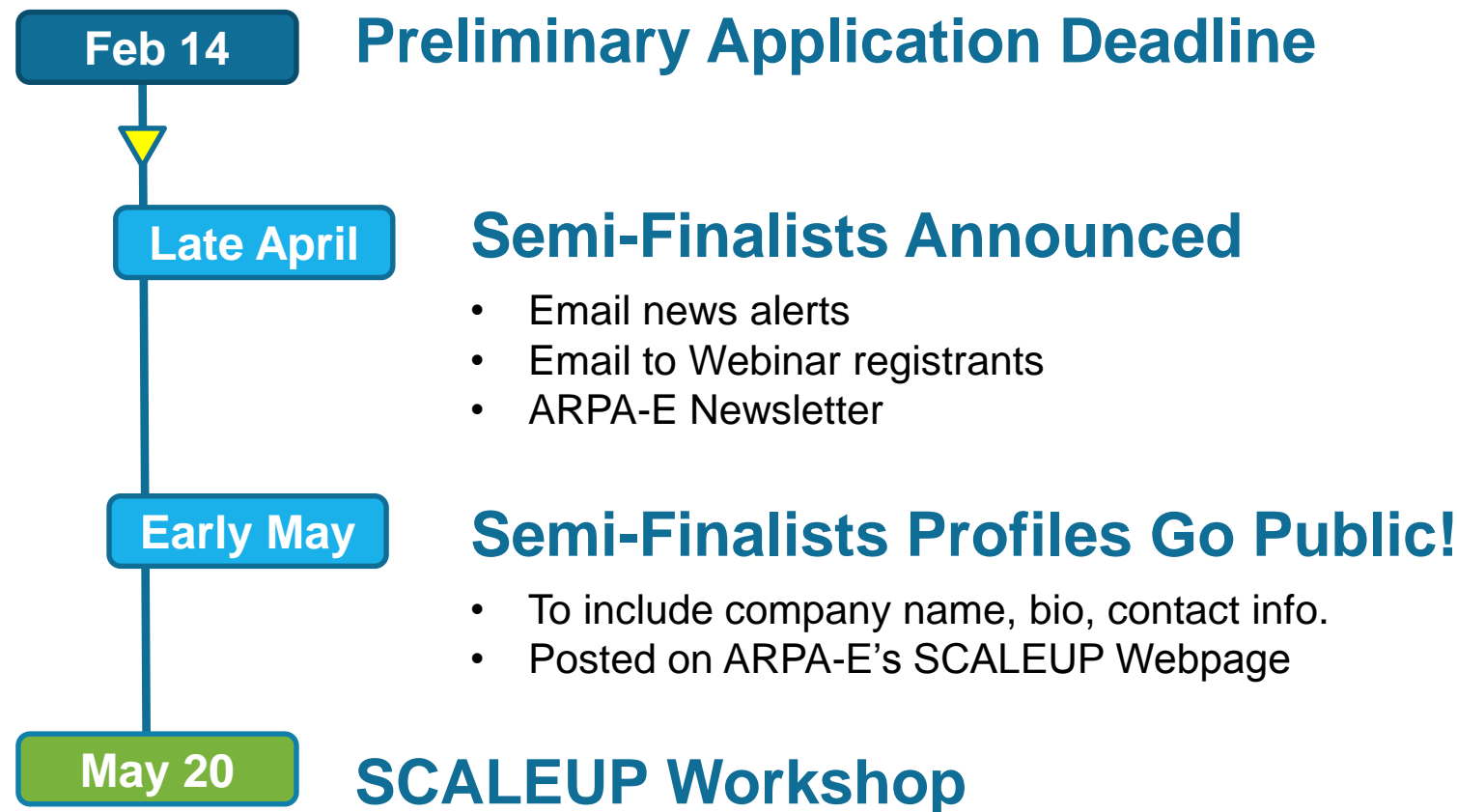
# SCALEUP Partner Responsibilities

Partners take on investment risk with the goal that the technology is successfully proven and commercialized.



# Upcoming Milestones

ARPA-E is offering several opportunities for potential partners to engage with SCALEUP Semi-Finalists.



# SCALEUP Workshop

## ► Logistics

- Stanford Linear Accelerator Center (SLAC) in Menlo Park, CA
- May 20, 2020 (All Day Event)
- *Attendees will include Semi-Finalists and invited stakeholders*

## ► Agenda Overview

- *Semi-Finalist Pitches*
- Dedicated time for networking
- Breakout rooms available throughout the day for *one-on-one confidential meetings*



# SCALEUP Review

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The SCALEUP Program is designed to:

- ▶ Encourage **small business** participation,
- ▶ Enable **further technology de-risking** of pre-production prototypes,
- ▶ Emphasize the importance of **market potential** and **team composition**, and
- ▶ Offer **contractual flexibility** to match the risk tolerance of investors and industry.

***SCALEUP Semi-Finalists will represent top ARPA-E technologies and teams.***

# Helpful Resources

- ▶ To learn more about ARPA-E's SCALEUP program visit:
  - <https://arpa-e.energy.gov/?q=scaleup>
- ▶ For information regarding the SCALEUP Workshop:
  - **Email** [arpa-e-comms@hq.doe.gov](mailto:arpa-e-comms@hq.doe.gov) with **“SCALEUP Workshop”** in the subject line
  - Please visit the SCALEUP Workshop webpage
    - <https://arpa-e.energy.gov/scaleup-workshop>
- ▶ Other resources include the:
  - The [SCALEUP FOA](#)
  - The SCALEUP FOA [General FAQs Section](#)



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# Let's Move into the Q&A!





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**ENERGY**

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